



COMDTINST 6510.1
MAY 12 1997

COMMANDANT INSTRUCTION 6510.1

Subj: USING THE DEOXYRIBONUCLEIC ACID (DNA) SPECIMEN REPOSITORY TO
IDENTIFY HUMAN REMAINS

Ref: (a) Medical Manual, COMDTINST M6000.1 (series)
(b) Prevention of Bloodborne Pathogen Transmission, COMDTINST M6220.8 (series)

1. PURPOSE. To establish policy and procedures on collecting and submitting DNA specimens to the Armed Forces DNA Identification Laboratory (AFDIL) Specimen Repository for use in identifying human remains.
2. ACTION. Area and district commanders, commanders of maintenance and logistic commands, commanding officers of Headquarters units, Superintendent of the Academy, Assistant Commandants for Directorates, Chief Counsel, and special staff offices at Headquarters shall ensure compliance with this instruction's contents.
3. DIRECTIVES AFFECTED. This instruction cancels requirements for collecting duplicate dental panoramic radiographs (DDPRs). Reference (a) will be changed to reflect the contents of this instruction.
4. BACKGROUND.
 - a. The Department of Defense (DoD) has changed its method of identifying its service members' remains. DoD has adopted deoxyribonucleic acid (DNA) testing because it significantly improves the identification rate in mass casualty situations where high explosives or high-impact forces produce unrecognizable remains. DNA specimens consist of a small amount of dried blood and an oral swab.

- b. DoD has established a DNA Specimen Repository associated with AFDIL. The Coast Guard will change from DDPRs to DNA methods to catalogue Coast Guard members (active and reserve) and identify their remains in case of death due to extreme trauma.

5. REQUIREMENTS.

- a. Commandant (G-WKH) shall ensure the following responsibilities outlined in the Memorandum of Agreement (MOA) between the Armed Forces Institute of Pathology (AFIP) and the Coast Guard are performed:
 - (1) Officially request the AFIP to conduct a complete medical investigation of death (forensic autopsy) under such circumstances as the Coast Guard has authority.
 - (2) Obtain the necessary authorizations for such procedures from the county, state, local authorities, and next-of-kin.
 - (3) Obtain release of remains to the AFIP from the custody of state and local authorities for medical investigation pursuant to this agreement by whatsoever legal means are deemed necessary by the Coast Guard. Secure any additional permits and cooperation necessary for the conduct of medical investigation services.
 - (4) Instruct Coast Guard members at the scene of death to assist the AFIP staff with local travel arrangements and to provide access to the scene of death.
 - (5) Obtain special mission aircraft when necessary to expedite the medical investigation of death.
 - (6) Assign a Coast Guard employee to attend and assist at the medico-legal investigation of death. Receive and retain evidentiary material (physical evidence) other than that pertaining to the medical-legal postmortem examination and to escort the body in order to maintain the proper chain of custody.
 - (7) Perform DNA sample collections in accordance with instructions provided by the DNA Specimen Repository.
- b. Commandant (G-WPM) shall perform the following responsibilities outlined in the MOA:
 - (1) Coordinate training visits by Director, DNA Repository to the three accession sites. Superintendent, U. S. Coast Guard Academy and Commanding Officers of Training Center Cape May and Reserve Training Center Yorktown shall request initial start-up training from the DNA repository via G-WPM-1 at 202-267-1908 The Director, DNA Repository is funded to provide this training to all accession sites.

- (2) Ensure reimbursement is made to the AFIP for all funds advanced to support operations under the MOA.
 - c. Commanding Officers of Training Center Cape May and Reserve Training Center Yorktown shall collect specimens from permanent party members and all new enlisted and officer accessions (active and reserve) upon reporting for basic training, Reserve Officer and Enlisted Basic Indoctrination or Officer Candidate School. There will not be any distinction between active and reserve components for collection purposes.
 - d. The Superintendent of the Coast Guard Academy shall collect a specimen from permanent party members and all cadets before graduation.
 - e. The Coast Guard shall not deploy any member into a hostile fire or imminent danger zone unless his or her DNA specimen is on file. The the DNA repository staff will annotate specimens contained in the DoD DNA Repository in the member's DEERS eligibility file. To reduce duplicative samples, commanding officers will ensure that the service member's medical record is annotated with the date a DNA sample is taken on the Problem Summary List (NAVMED 6150). During this program's start-up phase, commanding officers shall collect DNA specimens from all other active and reserve members during their routine quadrennial physical examination.
- 6. DATA AND SPECIMEN COLLECTION. AFDIL controls data and specimen collection procedures and issues collection kits. Enclosure (1) contains detailed procedures to collect personal (identifying) data, blood specimens, and oral swabs as well as procedures to reassemble and ship specimen kits.
 - 7. SPECIMEN STORAGE. AFDIL will store specimens submitted to the DNA Repository according to DoD instructions and conform with Privacy Act requirements. DNA specimens will be held for fifty years at the DNA repository. A service member having fulfilled his or her service obligation may request their DNA sample be destroyed by submitting a written request to the DNA Repository.
 - 8. USING DNA SPECIMENS TO IDENTIFY REMAINS. Using the DNA Repository does not preclude using other techniques, such as fingerprint comparison, serological analysis, or medical and dental radiograph comparisons, to identify remains. Medical personnel should use each of these procedures, when appropriate, to ensure identifying remains accurately and returning them expeditiously to next-of-kin. If using DNA Repository specimens becomes necessary, an official written request via the appropriate chain of command with a copy to Commandant (G-WKH) may be submitted to: Armed Forces Institute of Pathology, Office of Armed Forces Medical Examiner, Washington, D.C. 20306-6000.
 - 9. ORDERING SPECIMEN KITS. DNA specimen collection kits are sole-source items. Collection kits and bulk supplies are available directly from the AFDIL Repository at no direct cost to units. (Refer to enclosure (2) for kit components and ordering information.)

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Commanding Officers should order supplies directly, based on the number of specimens they anticipate collecting monthly.

/s/ G.G. PICHE
Director of Personnel Management

Encl: (1) Personal Data and DNA Specimen Collection Procedures
(2) DNA Supply Order Form and Kit Components

PERSONAL DATA AND DNA SPECIMEN COLLECTION PROCEDURES

1. Purpose. These DNA collection instructions are designed to give specific directions to installations and sites on the collection, and shipment of DNA reference specimens. Questions concerning collections procedures and supply orders or reorders can be directed to the DoD DNA Specimen Repository at telephone 301-295-4379 or facsimile 301-295-4388.
2. Collection Supplies.
 - a. A DNA specimen collection kit consists of a bloodstain card, oral swab, oral swab vial, fingerstick device, double shipping pouch, two desiccant packets, alcohol swabs, and a pencil. In addition, packaged with the collection kit are self addressed mailing envelopes, drying racks, fingerprint ink pads, and when requested 6" X 8" transfer pouches. Collection supplies are also available individually packaged in case lot quantities for collection ease.
 - b. All unique collection supplies used in collecting DNA reference specimens must either be provided by the DoD DNA Specimen Repository or approved by the Repository before use in the collection procedures. Specific requirements in fiber composition of the bloodstain card and oral swab, along with preservatives in the oral swab vials preclude the use of any substitutes except when directed by these instructions.
3. Collection Procedures.
 - a. DNA reference specimen collections that will be stored in the DoD DNA Specimen Repository shall be made using specimen swabs from inside of the cheek, and an air-dried bloodstain specimen. For personal safety, and to prevent contamination of the reference specimen, collection personnel should wear clean unpowdered gloves at all times when collecting and handling specimens.
 - b. Personal Data Collection: Bloodstain Card Data Information
 - (1) The service member, deploying civilian or civilian contractor using a number 2 pencil, or ball point pen (no felt tip or fountain pens) shall complete all information in the format requested on the bloodstain card, and carefully blacken the appropriate mark sense blocks corresponding to the social security number (SSN) and branch of military service. The Repository requests that letters and numbers be made as close to the examples on the bloodstain card as possible. However, bloodstain cards should not be discarded if the individual cannot make the alpha/numeric characters as depicted. The rule should be if collection personnel can read and decipher the individual's name, SSN, date of birth, collection date, and branch of military service, then it can be assumed that the repository can do the same. If collection personnel can not decipher the individual's writing, then the bloodstain card should be discarded and completed again. It should be noted by collection personnel that the DNA bloodstain card is a two part form. Each part is identical. Both parts shall be completed and contain the same information.

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- (2) Upon completion of the personal identification data, the reverse side of the bloodstain card shall be completed. Using the fingerprint pad provided with the collection supplies, the service member, deploying civilian or civilian contractor shall place an imprint of their right index finger (finger next to the thumb) in the box provided on the bloodstain card. The fingerprint should be taken by a single moderate pressure touch of the finger to the appropriate box. The ink pad should be used each time the fingerprint is taken. The fingerprint should not be rolled on the card. Attention to this detail prevents smearing or illegible fingerprints. If an illegible fingerprint is obtained, do not discard the bloodstain card, but use the extra 1 " X 1 " fingerprint labels supplied with the collection supplies. Apply the extra label(s) to the bloodstain card, and repeat the fingerprint process until a readable fingerprint is obtained. If the individual does not have a right index finger use the left index finger, and annotate the bloodstain card. If the individual has no index fingers then use the middle finger, and annotate the bloodstain card with the finger that was used to take the print.
- (3) Have the service member, deploying civilian or contractor sign the card in either number 2 pencil or ball point pen (no felt tip or fountain pens). Ensure that the signature corresponds to the name the individual placed on the front of the bloodstain card.
- (4) After verifying that all information is correct and complete on the bloodstain card using a personnel roster, or an Identification Card, and the fingerprint is affixed, the blood specimen can be collected.

c. Specimen Collection

- (1) Blood Specimen Collection.
 - (a) Fingerstick Method: Place the bloodstain card so that the filter paper side containing the printed circles is facing up. Before any fingerstick is attempted, ensure that the area to be pricked on the individual's finger is cleansed thoroughly with an alcohol swab. Using the fingerstick device provided in the collection supplies, prick any finger except the right index finger. Each fingerstick device is designed to be used only once for safety purposes. Extra fingerstick devices will be furnished to ensure that collection personnel have enough devices on hand to complete the collection. Squeeze the pricked finger to produce droplets of blood. Touch the blood droplets to the appropriate circled areas of the bloodstain card so that the circled areas are at least half covered with blood. If more than one fingerstick is necessary, use a different finger for each stick until all four circles are at least half covered.

NOTE: WHEN COLLECTING BLOOD ON THE BLOODSTAIN CARD, ENSURE THAT YOU DO NOT CONTAMINATE THE CARD WITH BLOOD FROM ANOTHER INDIVIDUAL. THIS WILL INTERFERE WITH THE DNA IDENTIFICATION. THEREFORE, ENSURE THAT ALL WORK SURFACE AREAS, GLOVES AND OTHER SUPPLIES ARE CLEAN AND FREE OF BLOOD AND OTHER BODY FLUIDS BEFORE PROCEEDING WITH ANOTHER COLLECTION.

- (b) Venipuncture Method: Prior to venipuncture, ensure that the vacutainer tube contains the name and SSN identifiers specific to the service member, deploying civilian or contractor who is providing the blood specimen. Using standard sterile venipuncture techniques, draw the blood into a purple top vacutainer tube in which contains only ethylenediaminetetraacetic acid (EDTA). No other type of vacutainer shall be used. The DNA Specimen Repository offers a 6" X 8" transfer pouch that can be used to keep an individual's bloodstain card, oral swab vial, and vacutainer of blood together. The use of this pouch will facilitate keeping a service member's collection material together until it can be spotted. If a collection site uses the 6" X 8" pouch it will expedite the collection process, and allow collection personnel to return individuals to duty faster, and the collection personnel to spot the bloodstain cards in a less cluttered location. To transfer blood from the vacutainer tube to the bloodstain card, place the bloodstain card such that the filter paper side containing the printed circles is facing up. Taking precautions to prevent splatter or surface contamination, remove the top of the vacutainer. For personal protection, use laboratory blood spatter shields if available. Using a standard plastic disposable transfer pipette, place four drops of blood in the center of each of the four circled areas on the bloodstain card. Allow the blood to migrate throughout the circle to completely fill the circled area. If required, additional blood droplets may be applied to the circle. It is acceptable to have blood outside the designated circles. The more blood the better. Once the blood transfer is completed, dispose of the remaining blood, vacutainer, and pipette in an approved container. Do not reuse the plastic transfer pipette.
- (c) Drying of the Bloodstain Card: After affixing the blood to the bloodstain card, allow the blood to dry using the drying racks furnished by the DNA Specimen Registry. NOTE: DO NOT STACK THE BLOODSTAIN CARDS OR TOUCH THE BLOOD STAIN AREAS OF THE CARD WHILE TRANSFERRING THE BLOODSTAIN CARDS TO THE DRYING RACKS. ENSURE THAT GLOVES AND ALL SURFACE AREAS OF THE DRYING RACK ARE CLEAN, AND FREE OF BLOOD OR OTHER BODY FLUIDS. IN PLACING THE BLOODSTAINED CARDS INTO THE DRYING RACK, ENSURE THAT THE WET BLOOD STAINED ENDS DO NOT COME IN CONTACT WITH OTHER CARDS. THIS CAN BE ACCOMPLISHED BY

ALTERNATING THE BLOOD STAINED END OF THE BLOODSTAIN
CARD ON THE LEFT AND RIGHT SIDES OF THE DRYING RACK.

(2) Oral Swab Collection:

- (a) Open the individually packaged sterile swab from the packaged end opposite the cotton tip, and remove the swab being careful not to touch or lay the cotton tip portion of the swab on a contact surface. Ask the individual to open their mouth, and scrape the cotton tip swab against the inside left or right cheek. Apply a gentle force to ensure that epithelial cells have been collected on the swab. It is recommended that the collection person place a hand on the outside of the cheek to provide a counter support during collection. Collection personnel can also have the individual perform the oral swabbing following the above instructions.

NOTE: FOLLOWING THE COLLECTION DO NOT TOUCH OR ALLOW THE COTTON TIP TO COME IN CONTACT WITH ANY SURFACE.

- (b) Prior to opening the plastic oral swab storage vial, ensure that there is fluid (isopropyl alcohol) in the vial. If the vial is empty do not throw the vial away, just add regular alcohol. Also ensure that the plastic storage vial has a bar code from the blood stain card placed along the long axis of the vial. Do not wrap the bar code around the vial. Wrapping the bar code around the vial makes it impossible for the specimen processor to scan the bar code.

d. Specimen Kit Reassembly

- (1) Once the bloodstain card has dried, the card, oral swab vial, and double shipping pouch (two bag pouch attached by a perforation) are ready for assembly.
- (2) Remove two of the bar code labels from the bloodstain card of the individual, and place them in the appropriate blocks on the side of the bloodstain card that contains the fingerprint and blood pad circles. Remove a third bar code label, and attach the label to the oral swab vial along the long axis of the tube (do not wrap the label around the tube as this impedes electronic scanning).
- (3) Before packaging any specimen, ensure that the bloodstain card, and oral swab vial have correct common identifiers (bar code labels) belonging to a single service member, deploying civilian or contractor.

NOTE: THE REMAINING BAR CODE LABELS LEFT ON THE BLOODSTAIN CARD CAN BE USED TO IDENTIFY THE VACUTAINER TUBE OF BLOOD OR THE 6" X 8" TRANSFER POUCH. IT DOES NOT MATTER WHICH ALPHA CHARACTER (A-E) IS PLACED AT THE FOUR REQUIRED LOCATIONS.

- (4) Separate the instructions and remaining bar code if not used from the bloodstain card by tearing along the perforation, and discard. Next, fold along the perforated edge of the two duplicate halves of the bloodstain card for packaging.
 - (5) Place both bloodstain cards, with a desiccant packet, into one side of the double shipping pouch. Place the blood spotted end of the cards into the pouch first. Bulging of the pouch should be avoided by reducing the amount of entrapped air. Excess air should be removed by gentle hand pressure over the pouch prior to sealing of the pouch. Heat sealing of the pouch is preferable. A heat sealer can be provided with collection supplies. If using a self-sealing pouch, seal the pouch by first folding the lip closure on the perforated line that is located approximately " from the opening of the pouch. Second, remove the tape from the lip of the pouch to expose the adhesive. Third, fold the lip of the pouch along the perforated line so that the adhesive adheres to itself, press along the adhesive to ensure proper closure.
 - (6) Place the oral swab vial with the oral swab in the vial into the other side of the double shipping pouch. DO NOT SEPARATE THE DOUBLE SHIPPING POUCHES, NOR PLACE THE ORAL SWAB IN THE SAME POUCH AS THE BLOODSTAIN CARD. Seal the pouch as stated in paragraph (5) above.
NOTE: DO NOT PLACE THE DOUBLE SHIPPING POUCH IN THE 6"X8" TRANSFER POUCH FOR SHIPMENT TO THE REPOSITORY.
4. Shipment of Specimens to the Repository. Place the sealed double shipping pouches in a mailing pouch, (20 specimens per mailing pouch) furnished with the collection supplies. The use of other suitable mailing containers (cardboard boxes) is permitted and encouraged. If using cardboard boxes it is not necessary to package the specimens in the mailing pouches. When ready for shipment, seal the box. Before sealing, place a sheet of paper in the box or pouch with a point of contact, telephone number, and the number of specimens being shipped. It is not necessary to provide a list of the specimens with each shipment. The specimens can be mailed by USPS or shipped by an express carrier. If shipment cannot be immediately accomplished, the shipping container should be stored in a cool, dry environment away from direct heat. Specimens shall be mailed within 10 days of collection if stored under the above conditions. Mail to:

ARMED FORCES INSTITUTE OF PATHOLOGY
DOD DNA SPECIMEN REPOSITORY
16050 INDUSTRIAL DRIVE, SUITE 100
GAITHERSBURG, MD 20877

Enclosure (2) to COMDTINST 6510.1

DOD DNA SPECIMEN REPOSITORY
DNA COLLECTION SUPPLY ORDER/REORDER FORM

To order DNA collection supplies, complete all applicable blocks below. Sign the form at the designated location and fax the form to the DoD DNA Specimen Repository at 301-295-4388, or telephone at 301-295-4379. The form may be sent to the following address:

ARMED FORCES INSTITUTE OF PATHOLOGY
DOD DNA SPECIMEN REPOSITORY
ATTN COLLECTION SUPPLY REORDER
16050 INDUSTRIAL DRIVE, SUITE 100
GAITHERSBURG, MD 20877

INSTALLATION/SITE NAME _____

Address of where supplies are to be delivered (NOTE: All CONUS addresses are shipped by UPS, and must have either a building number, or street address for the supplies to be shipped to that address. If there is no building number or street address the supplies will be shipped by USPS).

Point of Contact (Include rank if applicable) _____

DSN Tel # _____ Commercial Tel# _____

Commercial Facsimile # _____

Number of Individuals to be collected _____

Do you need supplies in _____ kit or _____ bulk

Do you use the 6"x8" pouch _____ Yes _____ No

Do you use fingerstick devices to draw blood _____ Yes _____ No

Do you use mailing pouches furnished by Repository
to return specimens _____ Yes _____ No

Do you have Repository furnished heat sealers _____ Yes _____ No

Signature and position of person

requesting supplies: _____

LIST OF DNA COLLECTION SUPPLIES

Description of Supplies	Unit Of Issue	QTY	Remarks
DNA Collection Kit Supplies			
DNA Collection Kits	each		
DNA Collection Bulk Supplies			
Bloodstain Cards (100 per pkg)	package		
Oral swab vials	each		
Alcohol swabs (1,000 per box)	box		
Fingerstick device single use (50 per box)	box		
Mailing boxes/bags	each		
Desiccant (2000 per cs)	case		
Dbf perforated shipping pouch w/o tape (1000 per case)	case		
Dbf perforated shipping pouch w tape (1000 per case)	case		
Drying racks (50 per cs)	case		
Fingerprint ink pad (ea)	each		
Medical expedite labels (100 per pkg)	package		
Oral swabs (1000 per cs)	case		
Pencils (144 per box)	box		
Fingerprint labels (500 per roll)	roll		
DNA Collection Miscellaneous Supplies			
Transfer pouch w/o tape (1000 per cs)	case		
Transfer pouch w/ tape (1000 per cs)	case		
Impulse heat sealer (ea)	each		
Repository return address labels (100 per roll)	roll		
Supplies to be Furnished by Installations			
Gloves med/lge 6515-00-462-0832 to be purchased locally	N/A		
Venipuncture supplies to be purchased locally	N/A		